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(54) Title: X-RAY GUIDED DRUG DELIVERY**(57) Abstract**

A method of delivering an active agent to a target tissue, particularly neoplastic tissue, vascular anomaly or tumor tissue, in a vertebrate subject. The method includes the steps of exposing the target tissue to ionizing radiation; and administering a delivery vehicle to the vertebrate subject before, after, during, or combinations thereof, exposing the target tissue to the ionizing radiation. The delivery vehicle includes the active agent and delivers the agent to the target tissue. Representative delivery vehicles include platelets; leukocytes; proteins or peptides which bind activated platelets; antibodies which bind activated platelets; microspheres coated with proteins or peptides which bind activated platelets; liposomes conjugated to proteins or peptides, platelets, or leukocytes which bind activated platelets, or antibodies which bind activated platelets; and combinations thereof.